

**GOVERNMENT OF KARNATAKA  
BOARD OF EXAMINING AUTHORITY  
D. Pharm Part-1 Examination (ER-2020) - January-2023  
PHARMACEUTICS**

Time: 3 Hours

Max marks: 80 M

Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.

ii) Draw diagram wherever necessary.

iii) Answer to the point for objective type.

**SECTION -A****Long Essay (Answer any six)****6X5=30 M**

1. Describe in detail about the latest edition of Indian Pharmacopoeia
2. What are different types of containers used in Pharmaceutical industry
3. Discuss the theory of filtration
4. Explain the construction and working of double cone blender. Give any two applications
5. Classify different types of tablets with suitable examples
6. Describe ointment bases with suitable examples
7. What is novel drug delivery system? List the advantages and challenges of novel drug delivery systems

**SECTION -B****10X3=30 M****Short Essay (Answer any ten)**

8. Explain the importance of pharmacy education in India
9. Mention the advantages and disadvantages of rubber as a pharmaceutical packaging material
10. Describe the mode of action of Preservatives
11. Explain the working of fluidized bed dryer with neat labeled diagram. Give any two applications
12. Differentiate suspension and emulsion
13. Discuss the principle and construction of ball mill
14. Differentiate hard and soft gelatin capsules
15. What are pyrogens and explain the pyrogen test
16. Write a note on oral controlled drug delivery system
17. Describe the basic structure of pharmaceutical manufacturing plant
18. Explain the construction and working of cyclone separator

**SECTION -C****20X1= 20M****Objective type (Answer all questions)**

19. Define gels ✓
20. Define pastes ✓
21. Give two examples of sweetening agents ✓
22. Give two examples of chelating agents ✓
23. Define mixing ✓
24. Define size separation ✓
25. What is the disintegration time of hard gelatin capsules? ✓
26. Which type of glass is used to fill dry powders? ✓
27. What type of plastic is used in eye ointment tubes ✓
28. Define percolation ✓
29. Give two examples of suppository bases ✓
30. What are nasal drops? ✓
31. Silverson mixer homogenizer works on the principle of ----- ✓
32. The Bengal chemical and pharmaceutical works was the first indigenous industry established in the year ----- ✓
33. The particle of ---- pass through a sieve # 22 ✓
34. The first international pharmacopoeia was published in the year --- ✓
35. Match the following.

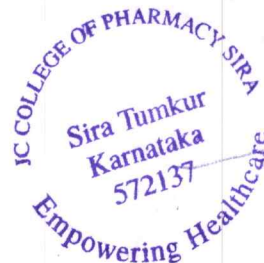
**A**

- 1) Niosomes
- 2) Quality control
- 3) Lacrisert
- 4) Quality assurance

**B**

- a) Aim to prevent defects
- b) non ionic surfactants based vehicle
- c) Aim to improve and identify defects
- d) Is sterilized rod shaped device for the treatment of dry eye syndrome
- e) A thin lens designed to fit over the cornea -
- f) Are sterile preparations multilayered solid or semisolid devices

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**GOVERNMENT OF KARNATAKA  
BOARD OF EXAMINING AUTHORITY  
D. Pharm Part-1 Examination (ER-2020) - January-2023  
PHARMACEUTICAL CHEMISTRY**

Time: 3 Hours

Max marks: 80 M

Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.

ii) Draw diagram wherever necessary.

iii) Answer to the point for objective type.

**SECTION -A**

Long Essay (Answer any six)

6X5=30 M

1. Explain complexometric titrations and write the assay of calcium gluconate
2. With a neat labeled diagram of apparatus write the principle and reactions involved in the limit test for arsenic IP
3. Write a note on dental products
4. Define and classify sedatives and hypnotics with examples. Write the structure of phenobarbital
5. Define and classify antiarrhythmic agents with examples
6. Write the structure, chemical name and uses of propranolol and phenytoin
7. Classify antimalarial agents with examples

**SECTION -B**

Short Essay (Answer any ten)

10X3=30 M

8. Explain types of errors
9. Write the principle and reactions of limit test for chlorides
10. Classify general anaesthetics with examples. Write the structure of thiopental sodium
11. Define and classify antidiabetic agents with examples. Write the structure of metformin
12. Write the structure, chemical name and uses and two brand names of Frusemide
13. Define and classify antacids with examples
14. Write the structure, chemical name, uses and any two brand names of Paracetamol
15. Define sulphonamides. Write the structure chemical name and uses of dapsone
16. Define antifungal agents. Write the structure of fluconazole and amoxicillin
17. Define and classify antineoplastic agents with examples
18. Classify cholinergic drugs with examples. Write the structure and uses of acetyl choline

**SECTION -C**

Objective type (Answer all questions)

20X1= 20M

19. Define assay
20. Write the structure of furan and pyridine
21. Write the labeling and storage conditions of laughing gas.
22. Write the structure of Captopril
23. Name any two calcium channel blockers
24. Define oxidation - reduction titrations
25. Define antibiotic
26. Write the structure and chemical name of indole
27. Write the combination of co-trimoxazole
28. Name any two drugs from cephalosporin group of antibiotics
29. Write the structure of Chloramphenicol
30. Define precision
31. ----- is a narcotic antagonist
32. ----- titrant is most commonly used in precipitation titration
33. ----- is an anticorona drug used to treat covid - 19 infections
34. Novamox is a brand name of -----
35. Match the following.

**A**

- 1) Morphine
- 2) Neostigmine
- 3) Copper sulphate
- 4) Adrenaline

**B**

- a) Blue vitriol
- b) Anaphylactic shock
- c) Anticonvulsant
- d) Cholinesterase inhibitor
- e) Opioid analgesic
- f) Throat infection

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Empowering Healthcare



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**GOVERNMENT OF KARNATAKA  
BOARD OF EXAMINING AUTHORITY  
D.Pharm Part-1 Examination (ER-2020) - January-2023**

**PHARMACOGNOSY**

Time: 3 Hours

Max marks: 80 M

Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.

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iii) Answer to the point for objective type.

**SECTION –A**

**Long Essay (Answer any six)**

**6x5=30 M**

1. Define Adulteration of crude drugs. Explain any four types or methods of adulteration with suitable examples.
2. Write the historical development and present status of Pharmacognosy.
3. Write the Biological source, Chemical constituents and therapeutical uses of drug each belonging to a) Acanthaceae b) Myrtaceae.
4. Define Glycosides. Write the general methods of isolation of Glycosides.
5. Write the basic principle involved in Homeopathic system of Medicine.
6. Enumerate the classification of crude drugs. Explain chemotaxonomical classification.
7. Define Cardiotonics. Write the Biological source, Chemical constituents of drugs used as cardiotonics.

**SECTION –B**

**Short Essay (Answer any Ten)**

**10x3=30M**

8. Write the method of preparation of Asava and Bhasma.
9. Write the general chemical tests of Alkaloids.
10. Differentiate Plant and Animal fibres.
11. Write the Alphabetical classification of crude drugs with merits and demerits.
12. Write in brief about chemical evaluation of crude drugs.
13. Give the source, Chemical constituents, cosmetic uses and commercial preparation of Aloe vera gel.
14. Write the various herbs containing omega -3- fatty acids and give its therapeutic applications.
15. Write the export potential of medicinal and aromatic plants.
16. Write the chemical constituents and therapeutic uses of a) Ephedra b) Gokhru c) Vinca.
17. Define Herbal formulations. Classify different herbal formulations with examples.
18. Define Pharmaceutical aids. Write any two chemical tests for Agar.

**SECTION –C**

**Objective type ( Answer all questions)**

**20x1=20M**

19. Define evaluation of crude drugs.
20. Define Volatile oils.
21. Name any two antioxidants.
22. Define Stomatal number.
23. Give the Biological source for senna.
24. Write the chemical constituents and uses of Sandalwood oil.
25. Define Pharmacognosy.
26. What is Pharmacological classification?
27. Name any one antidiabetic drug and write its chemical constituents.
28. What is surgical catgut?
29. Name any two distinction tests between Black catechu and Pale catechu.
30. What are Nutraceuticals?
31. ----- is the family of Asafoetida.
32. Cinchona is used as ----- and -----
33. ----- is an example for antihypertensive drug and belongs to ----- family.
34. ----- is the shape of Cinnamon Bark.
35. Match the following

A

1. Disc shape of Nuxvomica seeds.
2. Anti-dysenteric.
3. Keller Killiani test.
4. Unani medicine.

B

- a) Hippocrates.
- b) Charaka.
- c) Organoleptic evaluation.
- d) Ergot.
- e) Ipecac.
- f) Digitalis.

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**GOVERNMENT OF KARNATAKA  
BOARD OF EXAMINING AUTHORITY  
D. Pharm Part-1 Examination (ER-2020) - January-2023  
HUMAN ANATOMY AND PHYSIOLOGY**

**Time: 3 Hours**

**Max marks: 80 M**

**Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.**

**ii) Draw diagram wherever necessary.**

**iii) Answer to the point for objective type.**

**SECTION -A**

**Long Essay (Answer any six)**

**6X5=30 M**

1. Classify different types of bones of skeleton system.
2. Explain the sequence of blood clotting.
3. Describe the internal structure of heart.
4. Explain the structure and functions of liver.
5. Describe the structure and functions of spinal cord.
6. Draw a neat labeled diagram of ear and write its functions.
7. Name the hormones of adrenal gland and mention their functions.

**SECTION -B**

**Short Essay (Answer any ten)**

**10X3=30 M**

8. Define muscular tissue. Write a short note on Non- striated muscle.
9. Write the composition and functions of blood.
10. Discuss structure and functions of Lymph nodes.
11. Explain Renin angiotensin system.
12. Explain the mechanism of breathing.
13. Write the composition and functions of saliva.
14. Write the functions of medulla oblongata.
15. Draw neat labeled diagram of eye.
16. Write briefly on spermatogenesis.
17. Write the functions of ADH and oxytocin.
18. Draw a neat labeled diagram of skeletal muscle.

**SECTION -C**

**Objective type (Answer all questions)**

**20X1= 20M**

19. What are Goblet cells?
20. What are cytoskeletal structures?
21. What are lysosomes?
22. Name any two cartilages.
23. What is Rh factor?
24. Define hypotension.
25. What is Tidal volume?
26. What is Nephron?
27. Define spermatogenesis.
28. What is menstrual cycle?
29. Define BP. Write its normal value.
30. Mention two disorders of Thyroid gland.
31. The spermatozoa are produced in the ----- tubules.
32. Power house of the cell is called -----
33. Lungs lie in the thoracic cavity separated by ---- from the abdominal cavity
34. The dental formula of permanent teeth is -----
35. Match the following.

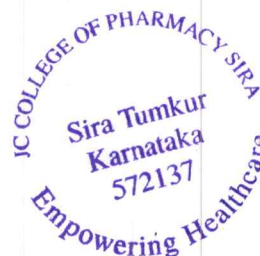
**A**

- 1) Cerebrum
- 2) Cerebellum
- 3) Hypothalamus
- 4) Midbrain

**B**

- a) Controls the pituitary gland
- b) Controls the vision and hearing
- c) Controls the rate of heart beat
- d) Seat of intelligence
- e) Maintenance of body posture
- f) Ventricles

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**GOVERNMENT OF KARNATAKA  
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SOCIAL PHARMACY**

Time: 3 Hours

Max marks: 80 M

Note: i) Answer 6 questions from section A, 10 questions from section B and all questions from section C.

ii) Draw diagram wherever necessary.

iii) Answer to the point for objective type.

**SECTION -A****Long Essay (Answer any six)****6X5=30 M**

1. Define health. Enlist the various dimensions of health
2. Write the importance of breast feeding
3. Define balanced diet. Explain prevention of various types of nutritional deficiency diseases
4. Write the applications of epidemiology
5. Enlist five respiratory infections with causative microorganisms
6. Explain clinical presentation, causative agents of malaria
7. Write the types of chemical and mechanical contraceptives

**SECTION -B****10X3=30 M****Short Essay (Answer any ten)**

8. Explain the application of Pharmacoeconomics
9. Write the causative organism and preventive measures of STDs
10. Write the objectives and functioning outcome of NPHCE
11. Write the effects of artificial ripening
12. Give two examples for drug – food interaction
13. How to prevent environmental pollution due to pharmaceuticals
14. Enlist any three national health programs with two objectives each
15. How to control suicidal behaviors in psychosocial pharmacy
16. Write the clinical presentation and preventive measures for typhoid
17. Write the clinical presentation and preventive measures for dengue
18. How to control alcohol withdrawal symptoms

**SECTION -C****20X1= 20M****Objective type (Answer all questions)**

19. Write the important role of international labour organization (ILO)
20. Mention any four psychotropic substances
21. Give the examples of body building foods
22. Write the disease caused by deficiency of Iron
23. Why Kwashiorkor is called as "RED BOY"?
24. List the adulterants of coffee powder
25. Mention the chemicals used for artificial ripening
26. Write the causative organism of chicken pox
27. Write the causative agents of mumps and tetanus.
28. Write the main objectives of NMHP
29. Define cost minimization analysis
30. Name the disease caused by increased blood uric acid concentration
31. NHP stands for ----
32. Incubation period for HIV is -----
33. Noise pollution starts at ----- decibels
34. NTP was started in ----
35. Match the following.

**A**

- 1) Aedes aegypti
- 2) Vitamin B1
- 3) Vitamin D
- 4) Ascorbic acid

**B**

- a) Beri- Beri
- b) Scurvy
- c) Cataract
- d) Osteoporosis
- e) Night blindness
- f) Dengue

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